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ABSTRACT

This document contains four papers from a symposium on university instruction in human resource development (HRD). "Developing a Distance Learning HRD Baccalaureate Degree for Working Adults" (Barbara E. Hinton) documents the planning process for a distance learning baccalaureate HRD degree option and presents a 10-step distance learning model focusing on HRD program delivery through a combination of weekend scheduling, extensive experiential credit recognition, interactive compressed video delivery, and articulation between two- and four-year institutions. "An Evaluation of Distance Learning in the University of Minnesota Human Resource Development Program" (Teresa Tillson, James Warner, Gary N. McLean) measures the program's success from the viewpoints of students, faculty, and administrators. An HRD graduate class that used action learning principles to gather assessment data for an academic program is described in "Incorporating Action Learning in the Classroom: A Case Study" (Kimberly S. McDonald). "A Study of the Learning Characteristics of a Group of Adults Undertaking a HRD Program in a Tertiary Environment" (Bryan W. Smith) reports on a study in which a qualitative approach was used to examine the thoughts and feelings of four adult learners undertaking an HRD program in a tertiary institution. (MN)

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1 **University Instruction in HRD**

Chair: Tim Hatcher, University of Arkansas

Developing a Distance Learning HRD Baccalaureate Degree for Working Adults
Barbara E. Hinton, University of Arkansas

An Evaluation of Distance Learning in the University of Minnesota Human Resource Development Program
Teresa Tillson, University of Minnesota
James Warner, University of Minnesota
Gary N. McLean, University of Minnesota

Incorporating Action Learning in the Classroom: A Case Study
Kimberly S. McDonald, Indiana-Purdue University Fort Wayne

A Study of the Learning Characteristics of a Group of Adults Undertaking a HRD Program in a Tertiary Environment
Bryan W. Smith, Perth University, Australia

ACADEMY OF HUMAN RESOURCE DEVELOPMENT

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B Hinton K McDonald
T Tillson B Smith

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Developing a Distance Learning HRD Baccalaureate Degree for Working Adults

Barbara E. Hinton
University of Arkansas

This paper documents the planning processes for a distance learning baccalaureate HRD degree option. Topics covered include needs assessment, program/curricula design and development, partnership and articulation development, marketing and recruitment, staffing and scheduling, and evaluation. The ten-step distance-learning model focuses on an HRD program option utilizing delivery through a combination of weekend scheduling, extensive experiential credit recognition, interactive compressed-video delivery utilizing multi-site locations, and articulation between two-year and four-year institutions.

What should an administrator know and do when developing an HRD-focused distance learning baccalaureate degree program to successfully meet the needs of working adults across a widely dispersed geographic area? What is the process for developing such a program and administering the myriad of details associated with such a program? What are the issues that must be addressed if such a program is to be a success? How can an administrator avoid fatal pitfalls and remain sane?

Theoretical Framework

Today's workplace is rapidly changing, requiring ". . . workers to have both the communication and interpersonal skills necessary to interact effectively with customers and the adaptability and influencing skills necessary to direct the organization to the customers' demands" (Carnevale, 1991, p. 147). "No factor is of greater significance than education in determining success in today's (and tomorrow's) advanced technology workplace ." (Hay, 1993). As we have continued to recognize the revolutionary changes in America's workplace in the past few years, it is evident that the autocratic management system of the past is being replaced by autonomous work teams, that the workforce is becoming more and more diverse, and that technology permeates even the most labor intensive jobs. Today's workforce must be more flexible and better educated; however, in today's economy, they need access to education and training while maintaining their full time work schedules. Competencies required by today's workforce have been documented by many organizations including the American Society for Training & Development (ASTD) and the Secretary's Commission on Achieving Necessary Skills (SCANS). In 1995, (National Center for Education Statistics, 1997), 38.6 per cent of all full-time employed individuals who had some post secondary education, but were not college graduates, took one or more courses during the previous 12 months to improve their job skills. This is a decrease from 39.3 per cent who did so in 1991. There has not been an increase among this group of workers in skill improvement education and training, despite the increased emphasis nationally on identification of skills and competencies needed by today's full-time workers.

Although 60 percent of adult students are degree seekers according to the College Board (Dubois, 1996), until recently very few colleges offered adult learners the opportunity to complete an entire degree at-a-distance. Dubois contends that those institutions of higher learning which

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make the paradigm shift from traditional higher education delivery to delivery of programs which transcend geographic boundaries, are time and place independent, and respond to the educational needs of the working adults will be the ones which will prosper. Distance learning must emphasize "quality education that is inclusive, available, attainable, and learner-centered."

"Distance learning, with a history of serving remote learners, is emerging as part of mainstream education and training efforts to provide flexibility of time, space, and selection to learners." (American Council on Education, 1997). ACE describes the five principles important to distance learning as follows: Learning Design—activities designed to fit the specific context for learning; Learner Support—opportunities effectively supported for learners through fully accessible modes of delivery and resources; Organizational Commitment—initiatives backed by a commitment to quality and effectiveness; Learning Outcomes—programs guided by demonstrable learning outcomes; and Technology—provider has a plan and infrastructure for using technology to support its learning goals and activities.

Research Questions

The need for a flexible program that is responsive to the needs of working adults has been well documented in the literature (Scott, 1993; Dillman, 1995; Scholossbert, N, Lynch, A. & Chickering, A., 1989; Thorson, M., 1996; Merriam, S. & Caffarella, R., 1991). Yet there has not been a step-by-step model suggested to guide the process for developing such a program, especially one which combines distance education delivery with weekend scheduling, experiential credit, work site internships, articulation with 2-year institutions, and HRD topic centered curriculum. The addition of any one of these elements to a traditionally designed baccalaureate degree makes the program development process increasingly complex; combining them all can be overwhelming.

What, then, are the key issues involved in developing a distance learning, HRD-focused, baccalaureate degree for the working adult? What steps should an administrator take in developing such a program?

Methodology

The paper examines the steps involved in developing a distance learning baccalaureate degree for working adults. A model presented integrates research from the literature and the experiences of the author in developing such a degree program at the University of Arkansas. In fall 1996, the Department of Vocational and Adult Education (VAED) launched an innovative program—a distance learning undergraduate program option in HRD. A second cohort was added at four additional sites in fall 1997. Prior to this, the University had never offered an outreach undergraduate degree option. The procedures used in developing the program and key issues addressed in each step of the development process are presented in this paper. The model used consisted of ten steps.

Step One—Needs Assessment The statewide needs assessment was conducted in two phases. In phase one, forty-two self-identified HR professionals were interviewed by telephone by the researcher, using a structured open-ended (OE) and closed-ended (CE) interview guide. All forty-two interviewees were members of statewide professional HR organizations. The purpose of the interviews was to identify what HR practitioners in Arkansas perceived as the competencies required for successful performance in their field. The OE/CE interview guide was based upon previous research conducted by the University Division of Continuing Education. Results of the interviews were transcribed, coded, and grouped into content areas or categories. Phase two involved a state-wide survey of 464 HR professionals representing service, manufacturing, government/public, and educational organizations. The survey instrument was a modification of the HRD competencies identified by McLagan (1989) and was quite long. There was a return of 69 usable surveys. Although the return rate was small (6.7%), the results were revealing.

Results. Interview results identified the following six content areas being of high interest: Communication, Legislative Issues, Health/Safety, Teams/Groups, Worker's Compensation, and Employee Review. Percent of respondents mentioning these areas ranged from 89% mentioning Communication to 54% noting Employee Review. When asked if they had an interest in a certification or degree program, 65% indicated "yes", 29% said "possibly" and 6% said "no". Reasons most often cited for negative responses to professional development activities were "time away from job, location of programs, lack of program information, and lack of manager support". Incentives mentioned as motivating potential participation included "organizational tuition reimbursement, degree completion, and desire for professional growth". Percentages of respondents performing specific job responsibilities are described in Table 1.

Table 1
Percentage of respondents performing given job responsibilities

Training/Facilitating	78.7%
Managing Training	54.5%
Organizational Development	48.4%
Program Evaluation	42.4%
Career Development	40.9%
Research	22.7%
Sales & Marketing	18.1%
Other	56.0%

Step Two—Degree Design A vocational education degree option entitled Industrial Trainer was already in place. The degree option had only had never been a popular one for traditional undergraduates, and it was not readily accessible to working adults, given that it required a full four-year on-campus residence. The faculty felt that the timing was right to revise the option. Based upon the results of the needs assessment, a faculty task force designed the degree to meet several criteria. It should provide the competencies that were identified in the needs assessment, recognize prior experiential learning, and enable the student to complete the degree while remaining in a full-time job without relocating. The faculty was clear that the degree should retain academic rigor while accommodating the needs of a special population of under served adults.

Results. The 125-hour degree was designed to articulate with two-year 56-hour associate degrees which can be obtained through the state's community college system. The average working adult can complete the associate degree at a community college within a 30-mile radius of his/her home. The last two years of the degree were designed with 69 hours of technical courses to include a 24-hour HRD block, 12 hours of internships, and up to 33 hours of experiential credit to be earned through portfolio development documenting prior learning and/or work experience.

Step Three—Curriculum Design In the needs assessment phase, respondents ranked the top competencies they currently needed as presentation skills, coaching skills, organizational behavior understanding, negotiation skills, adult learning understanding, computer competence, industry understanding, project management skills, and visioning skills. Those they will need in the future were identified as relationship building skills, negotiation skills, coaching skills, project management skills, computer competence, electronic systems skills, industry understanding and intellectual versatility.

Results. These skills were key to curriculum design. Eight 3-hour HRD courses were developed around competencies within these skill areas. The 12-hour internship was designed to

provide students an opportunity to apply these competencies in a work-related setting. In addition, CAEL guidelines were adapted to provide structure in portfolio development to documenting past experiential learning.

Step Four—Delivery System Design The Department of Vocational and Adult Education had been a leader within the College of Education and Health Professions in providing graduate level distance education classes during the past six years. However, there had never been an undergraduate program offered via distance education at the University. The faculty felt that the intended audience for the degree option was ideal for distance education delivery; i.e. the targeted students were highly motivated adults with at least five years of work experience and who were currently employed full time. The College had a compressed-video studio, another studio was available nearby, and there was a statewide compressed video system available. It was seen as essential that the distance learning delivery system be utilized if the intended audience was to be reached.

Results. The agreed upon design was to delivery the 69 technical hours of the degree as follows: The 24-hour HRD course block would be delivered via interactive, compressed video to at least three remote sites over a two-year period. Students would be admitted as a cohort at the start of the 2-year rotation. Two HRD courses would be delivered each semester via distance learning technology. The internship and portfolio credit would be earned by arrangement and supervised by VAED faculty. The general studies requirement would be met by the students completing those requirements at any two-year or four-year college of their choice, provided the credits met the University of Arkansas transfer policies.

Step Five—Program Approval The program approval process was facilitated by two important factors. First, since this was a program option modification, not a new program, we did not have to go through a complete new program justification procedure. (This was fortunate since in this time of limited resources, it is very difficult to get a new program approved, especially one which was as ground-breaking as this one.) However, program modification did have to be approved from the department, college and university levels through the University of Arkansas' Board of Trustees. The Department of Higher Education Coordinating Board had to approve host sites. Secondly, the documented needs assessment and sound degree and curriculum design were not difficult to defend.

Results. While it took a full academic year, many meetings, and much patience on the part of the department head, the approval process was relatively painless. A sound program meeting the needs of under-represented working adults was not difficult to defend.

Step Six—Partnership Development In order to deliver the program at remote sites, it was essential that close partnerships be developed and maintained with the host institutions. It was essential that both the host institution and the University feel that the partnerships were a "win-win" situation. Issues which had to be addressed included location of host sites who had the necessary technology for distance learning, who would invite us into their delivery area and were open to building a partnership, and who would support our presence on their campus through use of their facilities.

Results. For the first cohort in fall 1996, we identified an originating site near the University of Arkansas and three potential remote sites. We made initial phone calls to the presidents of those institutions, provided an overview of the proposed partnership, and inquired of their potential interest. All agreed to meet with us to learn more about the potential partnerships. A team consisting of an associate dean of the college, the department head, and a faculty member made courtesy visits to the three two-year institutions. After outlining our program, describing how the host institution could benefit, and how could we partner in delivering the degree, the host site administrators agreed to entering into a partnership with us. A formal Memorandum of Understanding (MOU) was then initiated by the University with minor points negotiated between the two institutions. The MOU served as a guiding document, describing the details of the partnership and the responsibilities of each institution. The same process was followed in fall 1997, when the second cohort was launched at four additional sites across the state.

Step Seven—Staffing and Scheduling Because the faculty and staff are the persons who make any program successful, staffing was carefully considered. Criteria for selecting faculty included experience in delivering distance education courses and in working with non-traditional

students. In addition, faculty had to be knowledgeable in the subject matter and a proponent of andragogical teaching methodology. Staff had to be identified at the host site to assist with registration and other essential support services. Scheduling, registration and fee payments had to be coordinated between the University and host institutions.

Results. Four self-selected faculty members formed the instructional team. From the start, the faculty worked together in planning and delivering all instructional activities. The team meets several times during each semester to discuss issues and make plans. The faculty divided the various administrative details with one faculty assuming lead responsibility for advisement, another overseeing interns, and another assuming primary responsibility for portfolio development. While all the team assists in the various tasks involved, it worked well for one person to take primary responsibility for a given area. The Division of Continuing Education provides coordination for all distance learning delivery for the University. Their staff has worked diligently each semester to coordinate student admissions, class scheduling, registration, and fee collection. They also maintain a staff at two of the host institutions. At the other institutions, the host designated a person as a point-of-contact for the program. The University's Office of Financial Aid has cooperated fully in providing financial aid application assistance to students at distant sites. Respondents to the initial needs survey identified one day per week and weekends as their top preference for scheduling. This information, along with additional information gained during the needs assessment phase were key to designing the program. As a result, the decision was to offer two courses each semester over the two-year cohort period. One course meets on Friday evenings, 4:30 p.m.-9:30 p.m.; the second meets on Saturdays, 8:00 a.m.-1:00 p.m. the first nine weeks of each fall and spring semesters. An informal evaluation at the end of the first semester confirmed that this is the scheduled preferred by these students. Therefore, the same schedule has continued with year two. Each faculty member originated the class at the remote sites at least once during each nine-week semester. In addition, during each semester all the students meet together at a central location one weekend. The College has an overload reimbursement policy that provides overload pay for faculty teaching via distance education. This provides some compensation to faculty for the extra work involved in teaching large classes via technology.

Step Eight—Marketing and Recruitment Early in the development of the program, administrators expressed doubt that the program would be cost effective. The University agreed to allow the program to be delivered with the understanding that it would have to be self supporting. There was some concern early on as to "who would take the financial risks". Therefore, there was a great deal of pressure to market the program successfully.

Results. Fears of risks were very unrealistic. Marketing has been minimal with only two newspaper ads run at each host site. Two faculty members have spoken at professional organizations concerning the program. Letters and flyers were sent business and industry HR personnel. Response has been instant and excellent with 73 students in the two cohorts at eight sites across the state. Recruitment for the third cohort is currently ongoing, with posters located at industries and newspaper ads announcing the next cohort. An enrollment packet containing guidelines for admission to the program and the University, program requirements, and application forms are distributed by the Department as well as by the host institutions.

Step Nine—Program Delivery There are many details involved with delivering a distance learning program of this type. Faculty coordination, student registration, class scheduling, etc. have been discussed above. However, the mechanics of delivering instruction via technology require assistance of a knowledgeable technician. Details have to be coordinated concerning line charges, equipment usage, host site technical assistance, and scheduling with the service provider.

Results. The technician at the College has provided outstanding assistance. He is knowledgeable about the capabilities of the technology systems at each institution, understands the politics of working with institutions governed under different boards, and knows the technicians at the host sites as well as at the provider site. With his coordination, the program has experienced few problems and down time has been held to a minimum.

Step Ten—Program Evaluation We knew early in the program that program evaluation was as important as needs assessment and that the cycle would not be complete without each. The team wanted evaluation to be both formative and summative. We believed that all aspects of the

program must be constantly evaluated, monitored, and changed when needed. Therefore, a grant proposal to the Fund for the Improvement for Postsecondary Education (FIPSE) was submitted in fall 1996.

Results. The FIPSE grant proposal was funded, and the program will be evaluated through 2000. Both quantitative and qualitative data are being gathered around four issues: student access, student success, systems effectiveness, and program dissemination. Initial data are being analyzed and will be reported in the future.

Conclusions

The model (Figure 1) presented in this paper documents the program planning processes of a distance learning degree option from the needs assessment stage through the program design, approval, and delivery stages, and concludes with the evaluation stage. Topics covered include program/curricula design and development, partnership/articulation development, marketing/recruitment, staffing/scheduling, and non-traditional delivery systems. As a result of application of the model to the development and delivery of a distance learning degree over the past two years, it is apparent that such a program can be successfully delivered to meet the needs of working adults. However, it is equally apparent that many details must be attended to prior to program delivery. Lessons learned confirm that needs assessment, careful program planning, involvement of key stakeholders in the process, and continuous communication among the stakeholders are essential components of a successful program. Quantitative and qualitative program evaluation will be conducted during the next two years.

How Research Contributes to New Knowledge in HRD

While the paper is based upon a sound theoretical framework, its emphasis is on process. The implementation of this model at the University of Arkansas, Department of Vocational and Adult Education, has resulted in delivery of such a program at eight sites across the State, with current enrollment of 73 working adults.

The paper contributes to new knowledge in HRD in that the program combines elements previously unused *in combination*. While there have been previous distance learning programs delivered by technology, recognition of prior work experience and learning, weekend scheduling, required internships, or articulation between 2-year and 4-year institutions, to our knowledge, this is the first HRD program which combines *all* of these elements. The *process* for developing the program, gaining institutional approval, developing partnerships, and managing the many details leading to program delivery and evaluation is a tedious and arduous one, filled with many pitfalls which can lead to failure. This paper suggests ways to avoid those pitfalls. Information contained in this paper will assist an administrator seeking to duplicate a program of this type.

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An Evaluation of Distance Learning in the University of Minnesota Human Resource Development Program

Teresa Tillson
University of Minnesota

Gary N. McLean
University of Minnesota

James Warner
University of Minnesota

The University of Minnesota's Human Resource Development Distance Learning Project is now in the final year of a three-year funding cycle. This paper evaluates the project, measuring its success from the viewpoint of students, faculty, and project administration. Suggestions are made to shape the Project's strategies for the next three to five years and add this project's experiences to the emerging literature on the effective uses of distance learning technology using electronic media.

The Human Resource Development Distance Learning Project of the University of Minnesota is a pilot project to experiment with emerging technologies that allow students and faculty to interact across time and distance. It is funded by the College of Education and Human Development, University College/ Continuing Education and Extension, and Minnesota Extension System. Established in Spring, 1995, the Project's activities have included classes offered via interactive television (ITV) and the Internet. ITV classes are broadcast from the St. Paul campus to U of M sites in Morris, Crookston, and Rochester, MN. Students may earn an M.Ed. degree entirely through distance learning, with the exception of one required course associated with the annual conference of the Academy of Human Resource Development (AHRD), Emerging Research in HRD. This course was designed to provide distance learning students with in-person contact with at least one senior professor, other students, and professionals in HRD. The first graduates of this program completed their degrees in Spring, 1997. In total, 131 different students have taken at least one class using some form of distance learning.

For the first two years of the pilot project, the only Internet course offered was "Training on the Internet," taught from the Pennsylvania State University by Dr. David Passmore, under contract with the University of Minnesota. This course makes sophisticated use of the tools available for web design and Internet training delivery. In the third year, six additional courses (all 1 and 2 credits) were offered via Internet by University of Minnesota faculty.

Faculty for the ITV courses were drawn from regular University of Minnesota faculty and instructors. Usually one course per quarter from among the regular HRD/Adult Education offerings has been selected for ITV broadcast. Offerings were selected so students at the remote sites would be able to complete the necessary classes to complete an M.Ed. degree.

Problem Statement

Distance learning using electronic media is a technology that is generating great interest in the HRD field. It offers the promise of bringing together students and instructors across physical boundaries when a traditional classroom experience would not be feasible. Additionally, many look for lowered costs due to decreased travel. However, distance learning's effective use makes particular demands on the instructor/curriculum designer, on the student, and on the administration, which may differ greatly from the expected and well-known demands of the ubiquitous classroom experience. Moreover, student and faculty satisfaction with the distance learning experience may be affected by long acquaintance with and

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preference for face-to-face classroom interaction. Factors that affect faculty and student satisfaction with the learning experience are of special interest in this evaluation. Specific administrative costs and challenges are associated with distance learning, not the least of which is making sure all students and faculty have access to adequate and compatible equipment. Obtaining the needed equipment can make distance learning prohibitively expensive.

Finally, instruction via distance learning must be cost effective in order to be a viable alternative to classroom instruction. Marketing may need to be conducted differently in order to attract students who may be interested in seeking instruction through alternative methods. These students may not be aware that classes suitable to their needs are available and would not think to look for them in university catalogues. Candidates for instruction via distance learning include those who live too far from the university to attend classes and professionals and others whose business or personal schedules make regular classroom attendance difficult or impossible.

Review of Literature

This literature review focuses on the distance learning experience, itself, using electronic media and the cost-effectiveness of its use.

The Distance Learning Experience While distance learning (DL) has its roots in correspondence education, there are additional issues for distance learning when electronic technologies are incorporated into its implementation. These issues are related to the structure of the learning experience, its content, the environment used to deliver the learning experience, and how the experience is administered (Kelly, 1990). These, in turn, influence the level of learning and attitudes toward the learning experience by the students, instructors, and the institution.

Like other vehicles for delivering education, the structure of instruction via distance learning must incorporate appropriate instructional events for the type of learning which is to be attained (Winn, 1990). These events include use of behavioral models and learning environments which support cognitive development. The use of a specific model should be determined by the instructional goals of the program (Bell & Davis, 1995, 1996), including the teaching of critical thinking skills (Newman, Johnson, Webb, & Cochrane, 1997) and group participation skills (Phillips, Santoro, & Kuehn, 1989).

Learning can be related to the degree to which any two-way communication transaction between instructor and student or among students takes place as part of the educational process in any learning environment (Shale & Garrison, 1990). Because distance learning takes place with a spatial or chronological separation between instructor and student and among students, technology is used to facilitate the two-way communication process. McIssac and Gunawardena (1996) cited the constructs of transactional distance and level of interaction as being important to effective communication.

The implementation support structure for distance learning "can be enormous" (Oblinger & Maruyama, 1996). In addition to development of the content and materials, support includes installation and operation of the technology delivery system, changes to the organization, and the responsibility for universal access. Technology for distance learning often includes instructional television networks and wide-area and local-area computer networks, including computer-mediated communication (Romiszowski & Mason, 1996). Kelly (1990) categorized these issues into planning, course preparation, and ongoing support. In addition to planning, preparing, and maintaining the technology infrastructure, organizational infrastructure changes include processes for planning and approving the courses and administering such student services as registration, communication, monitoring progress, and resolving problems. Often there is resistance or inability of institutional members to make the changes necessary for effective delivery of learning (Miller, 1997; Oblinger & Maruyama, 1996). The degree to which learning takes place and students' administrative needs are addressed relates to the students' attitudes toward the learning experience. The attitude of organization members toward distance learning may also affect student attitude. While media are used to present instructional messages that change attitudes, the media themselves can change attitude as well (Simonson & Maushak, 1996)

Distance learning in North America tends to be delivered by universities. According to Bates (1995), these universities tend to be committed to the assumption that traditional "group, face-to-face instruction is the preferred and most effective form of higher education...and that the closer distance

education can directly imitate this, the more effective distance education will be" (p. 167). Distance learning technologies tend to be chosen and used to deliver classes rather than to create flexible learning opportunities. For this reason, use of distance learning in the U.S. has been less flexible and innovative in serving the needs of students than it has been in Europe and Asia.

Cost Effectiveness of Distance Learning Bates (1995) outlined general fixed and variable cost structures that can be expected using various forms of distance learning. Specific costs will vary based on specific situations. In general, interactive television tends to cost far more per student study hour than any other form of distance education. Both fixed production and equipment costs and variable transmission and labor costs tend to be high. Our own ITV classes demonstrated this; interactive television broadcasts to two distant sites required an instructor, two teaching assistants, three technicians, and three rooms full of sophisticated broadcast equipment. For the Internet courses, our students provided their own computers and Internet service, raising issues of access for those who may not be able to afford the equipment.

In summary, the evaluation of a distance learning project should focus on student learning, student attitudes toward the learning experience, faculty attitudes toward the experience, degree of institutionalization of distance learning delivery, the level of support required to implement distance learning, and cost effectiveness of the instruction relative to its goals.

Research Questions

The following questions were addressed in the evaluation components reported in this paper.

1. How satisfied are faculty, students, and project administrators with the distance learning experience?
2. Do students think they learn the class content effectively using the new technology? What factors enhance learning?

Methodology

A survey of students and interviews with instructors, project administrators, and an ITV on-site coordinator were used to answer the research questions.

Student Survey Based on the literature and the research questions, the survey was constructed in four sections of close-ended questions: Content of Courses (7 questions), Delivery Method (11 questions plus an additional 6 questions for Internet users), Administration (7 questions), and Overall Satisfaction (2 new questions plus the three "overall" questions from the previous three sections). The ratings provided a 5-point Likert scale of agreement ranging from "strongly disagree" to "strongly agree." An open-ended section provided respondents with the opportunity to provide unstructured feedback. The questionnaire was reviewed by two administrators from the program, a student who had been enrolled in distance learning, and two faculty members who had taught at least one of the classes, and revisions were made.

Survey Administration and Return Rate. All students (131) who were enrolled for one or more of the distance learning courses were mailed a questionnaire. Students who were part of an ITV class at the broadcast site (on the St. Paul campus) were not included in the survey because their experience was functionally identical to a regular classroom experience. Two weeks after distributing the questionnaire, a telephone call was made to all non-respondents requesting their participation. Subjects with no telephone number on file or who requested another copy received a second questionnaire.

Seven surveys were returned as undeliverable, and 51 useable returns were received, for a return rate of 42%. This might have been increased if 1) it had been possible to make more than one reminder contact, 2) there had not been a Canadian mail strike, and 3) current addresses for all students had been on file. The Human Subjects Committee at the University of Minnesota would not approve more than one followup request. Of the 51 returns, 18 students had taken an ITV course, 22 had taken an Internet course, and 11 had taken at least one of each. Two entries were made in the data matrix for these 11 respondents, one for their rating of the ITV course(s), and one for their rating of the Internet course(s). Thus, the analyses reported here are based on course ratings rather than individual returns. The final n for this analysis was thus 29 ratings of ITV courses and 33 ratings of Internet courses (for a total n of 62).

Survey Reliability. Reliability was determined by calculating Cronbach's alphas on the returned surveys. The reliabilities thus calculated, by section, were .84 for Content, .92 for Delivery Method, .71 for Administration, and .83 for Overall Satisfaction. These reliabilities range from acceptable to high (Rosenthal & Rosenow, 1991).

Interviews. Five of the 14 instructors involved in the Project were interviewed by telephone. The remaining instructors were not available during the interview period, but attempts will continue to be made to include them in a final report. An unstructured interview guide was developed; the intent was to have the faculty share their feelings and observations about their experiences with the Project. Four administrators involved with the Distance Learning Project and one ITV on-site coordinator were also interviewed. Two of the researchers reviewed the transcripts to identify themes that emerged from the interviews.

Results from the Student Survey

The means of the four sections ranged from mildly (3 86) to strongly (4.26) positive. Respondents thought most highly about the content of the courses, followed closely by their overall opinion of the courses. A small gap appears between these ratings and the ratings of delivery method and administration. However, even these sections produced positive opinions. Table 1 shows the means and standard deviations for the four sections. Paired t-tests (59 to 61 df) revealed no difference in the means for delivery method and administration and in the means for content and overall satisfaction ($p < .05$).

Table 1
Means and Standard Deviations for Four Survey Sections

Survey Section	Mean	sd
Content	4.26	0.68
Delivery Method	3.86	0.84
Administration	3.92	0.73
Overall Satisfaction	4.23	0.88

Comparing ITV and Internet Classes There were few differences in students' ratings based on method of delivery (ITV vs. Internet). Respondents did think the ITV courses had better administration (M=4.11) than the Internet courses (M=3.73)(t (58)=2.1, p=.04). However, both means still cluster in the upper end of the scale. Again, this is an issue of a difference between moderate and strong praise for the program. It is probably based on students' opinions that information about ITV courses was more available (M=4.48) than for Internet courses (M=3.72) (t (56)=3.46, p=.001). There were no other significant differences in students' opinions based on course delivery method (all p's > .1).

In-depth Look at Internet Several questions were asked specifically of the participants in the Internet classes. Access to technology (both physical access and skill level) remains an issue for a substantial minority of the sample. Ten students (31%) rated themselves at or below the scale midpoint in terms of having adequate physical access to the needed technology for the course (M=3.8, sd=1.39). Respondents' ratings of their skill level prior to the course also shows a bimodal distribution, with 10 people (31%) below the midpoint of that scale (M=3.5, sd=1.46). However, in rating their technology skill levels after taking the course, only 3 students (9.6%) continued to mark themselves below the scale midpoint (M=4.3, sd=1.08). Thus the course provided an opportunity for some students to enhance their skills with the technology. Finally, all but one respondent marked at or above the scale midpoint for the statement, "I enjoyed using the technologies in this course." Thus, though many found the technology challenging, almost all were satisfied with their interaction with it by the time the course was over.

Dissatisfied Customers There were 6 students whose scores on the 5-item "overall satisfaction" composite scale fell below the scale's midpoint (1.5, 1.67, 2.0, 2.25, 2.8, and 2.8). These were evenly split between the ITV courses and the Internet courses. However, all were students who were not in the HRD program. Perhaps being on the outside of the formal communication channels of the HRD program, being in a distant location from the university, and using an experimental program to take a class all conspired together to make their experience less than enjoyable.

Open-ended Responses Most students taking ITV who made comments liked the experience overall. However, when they were critical, they most often focused on poor instructional methods used by some instructors, lack of accessibility to the instructor, the poor performance of some of the ITV technology, and the large size of the classes which limited participation with the overall group. They were most satisfied with the ability to access instruction not otherwise available, the effort by some of the instructors to make sure the course material came through clearly at all locations, and the use of discussion groups, high quality visuals and video resources, and outside speakers.

There were equally as many favorable as unfavorable comments about the Internet courses. The unfavorable comments centered around the inability to access course content because of difficulty with the technology, lack of access to the technology, lack of personal expertise with the technology, and the amount of work that was required. Those who responded favorably felt that the use of the Internet was appropriate for the subject matter, that the courses were well structured, and that the instructor kept in touch to give them feedback and make the course interesting and relevant. Favorable comments also cited the use of many of the communication capabilities of the Internet, such as chat-rooms and video conferencing, access to a number of exemplary sites and resources that were incorporated into the course, and frequent contact with the instructor and other students.

A common underlying theme in favorable comments for both media was the perception of significant amounts of "individualization" of the course. The reverse was true in the unfavorable comments; these students were unable to "connect" with the instructor, the course itself, or other students. Those who seemed pleased found a way to "take responsibility for (my) own learning and became comfortable with the technology."

Themes from Interviews with Instructors, Administrators, and an On-Site Coordinator

A review of the transcripts of the interviews yielded the following themes.

Team Work, Cooperation, and Planning Instructors reported that preparing for DL courses required far more time and attention to detail than preparing for traditional classroom courses. Team work and cooperation among instructors, technical media specialists, and administrators were important attributes of successful course preparation and implementation. Traditional classroom instruction, in contrast, tends to be a solo effort. For DL, course materials and course plans need to be completed well in advance of a specific class session so all team members can fulfill their particular responsibility.

Flexibility On-the-spot flexibility is required when unplanned occurrences interfere with planned activities. The instructor is confronted with such issues when snow prevents students from reaching one of the sites, but students are present at the host site; when the system goes down for an hour in the middle of class; or when faxed materials are lost or the fax machine is down. In some respects, these situations are faced in a traditional class. Overhead projector bulbs burn out, some students are isolated in a snowstorm while others make it, and directions to support staff are misinterpreted. The magnitude of the issues, however, seems larger.

Using DL Technology While offered to all instructors, few of those interviewed took advantage of specific training in using the DL technology. Difficulty with the technology ranged from "annoying" to "show stopping." For ITV courses technical difficulty sometimes caused portions, such as audio, to be missed, and even cancellation of entire class sessions. Noise, including paper rustling and electronic noise, was sometimes a noticeable distraction. This noise, along with forced protocols, such as waiting for a remote site to be recognized, was felt by some to seriously detract from the educational experience.

Technical difficulty in Internet courses was sometimes more subtle and cumulative in effect. According to reports from students to those interviewed, repeated difficulty in gaining computer access to the course(s) caused some students to drop out before completing the course while feeling upset with the

technology and the University as an institution. Internet courses that pushed the "technology envelope" were felt to be difficult for many of the students because they did not have enough previous experience to make it work. However, courses that did not make good use of technology were considered boring. The courses cited as most satisfying to students were those that used several levels of technology (e.g., computer video conferencing, on-line delivery of content, reference to on-line resources, chat-rooms, and e-mail) to accommodate the technological ability and access level of the students.

Administration: Performance and Roles The quality of service performed by the distance learning administrators was perceived to be widely variable. All past and current administrators interviewed expressed frustration with the lack of continuity between incumbents and the need to spend an inordinate amount of time finding out "how the system works" with respect to registration, tracking enrollments, disbursing funds, etc. It appears that clear operating procedures were difficult to establish within the existing University bureaucracy, difficult to document because distance learning required so many exceptions to established University procedures, and difficult to maintain because of high turnover in the DL administrator position, in one case due to an improved employment opportunity and in two cases due to performance deficiencies.

The Distance Learning administrators tended to occupy the position for one year. On two occasions the position has been split between two people. The duties of the position tend to cover a broad and ill-defined range that has included administration, coordination among the personnel and sites, technology troubleshooting, student communication and support, answering content questions on HRD, and instructional design. Few individuals who have occupied the administrator position felt that they did an adequate job of performing all of these functions, and many found the experience to be less than satisfying. The exception was when the position was shared among people with complimentary skill sets, and specific responsibilities were assigned to each person. Some also said that the expectations others held for their role were unreasonably high.

Student Educational, Communication, and Support Needs The persons interviewed reported that some DL students enrolled in HRD courses simply because those courses were available. They saw these DL courses as their only option due to constraints in time or geographic distance. These same students tended to appreciate having access to higher education and were willing to overlook technological shortcomings in the delivery. Students interested in fields other than HRD often asked why other programs were not available to them via distance learning.

Some students in DL courses sought out the DL administrator or on-site coordinator because they felt that instructors were not easily available. Communication through a variety of means became more important since personal, informal classroom contact (before and after class, and during breaks) was rarely available. The communication methods used included telephone, individual conference via ITV before class, e-mail, and computer conferencing. Courses that used a broad array of communication were positively perceived to have built a "community." It was reported that ITV students, in general, felt that they could interact satisfactorily with the instructor at the broadcast site, though the University's system is set up to shut down the transmission precisely at the time the class is scheduled to end.

All persons interviewed said the courses offered through DL had to be more entertaining, engaging, and exciting than traditional classroom instruction to hold students' interest. Visual materials used in ITV classes needed to be of high quality, including larger graphics and smaller amounts of detail, in order to be viewed clearly at remote locations. Visuals created using PowerPoint or other graphic packages were cited by several persons as contributing to student satisfaction.

Several people reported that ITV and Internet classes that used standard adult learning principles in the instructional design increased student satisfaction. The learning principles cited included shorter presentations, frequent breaks, group discussion, allowing participants to define personal learning goals within the course goals, and heavy use of projects and papers that reflected application of course content to the students' environment and experience.

What Would Make Distance Education More Feasible?

Based on these shared experiences with distance learning at the University of Minnesota, the following suggestions are made to increase the feasibility of distance education.

Numbers of Students: Marketing and Cooperative Ventures Distance learning using two-way communications technologies requires large numbers of students to justify the cost. Careful business planning is needed to design a financially viable distance learning program. Three possible ways to get the numbers needed deserve particular attention. One is marketing, especially to constituencies not usually targeted by University publications. Students from outstate Minnesota, professionals and others who cannot commit to regular class attendance, and persons from outside the state are all possible target markets. Another approach is to enter into partnership with other educational institutions, perhaps from other countries, to offer distance learning courses to students from both institutions. The HRD program has already discussed this possibility with universities in the Netherlands, South Africa, Korea, and the Peoples' Republic of China. Such a relationship could well emerge within the next year. A third option would be to move away from the current, fixed-cable system, with its limited broadcasting flexibility, to a system, such as available through ISDN lines, to broadcast to multiple locations at flexible sites.

Commitment from the University to Serving Constituents Distance learning can help the University serve students who would otherwise not have access to higher education and can make the University into a national and global institution. The strategic issue for the University is what its mission should be in the future and what constituents it should serve. If broad outreach throughout the state, the nation, and the world is part of this strategy, distance learning will need to be a key component. But without the appropriate infrastructure to support this mission, it will not be fulfilled.

Systemic Support from University Infrastructures The University infrastructures are currently geared toward supporting a classroom experience. Distance learning requires different administrative support functions, and these must be accommodated to make such programs function smoothly. Numerous changes would be required in Graduate School policies discriminating against distance learning, high tuition rates for non-residents, confusing registration procedures, the assumption that courses begin and end within a specified period of time (currently, quarters), lack of appropriate faculty workload policies and reward systems, inadequate equipment infrastructure, and so on. Detailed recommendations for improvements within the University of Minnesota system are contained in a report from the Distance Education Council and Distance Learning Strategic Planning Committee (1997), of which McLean is a member, entitled, *Distance learning and information technology at the University of Minnesota.*

Using a Broad Array of Communications Technologies The goal of distance learning is to deliver education to students outside of the traditional classroom, often without face-to-face contact with an instructor. A full distance learning program needs to focus on delivering that education, not on the use of any one delivery medium. In fact the various media are most effective when used in combination.

Issues of Access Access in terms of technical skill and physical access to the technology is crucial to the success of distance learning. Internet courses are especially open to criticism on the issue of elitism because not everyone has access to the equipment nor knowledge to use the technology. While computer labs are available on campus, using them for Internet courses is difficult at best and defeats the primary advantage of the use of the Internet

Conclusions

Educationally, the HRD Distance Learning Project at the University of Minnesota has been a success. Students who would not otherwise have had access to higher education were served. Graduate degrees in HRD were conferred. Student satisfaction with the program was generally high. Academically rigorous courses were developed and delivered. Faculty members gained skills in using the new delivery media, and several new courses were developed. While physical and technical access to Internet courses was a problem initially for some students, most were able to overcome these challenges.

However, the HRD Distance Learning Project will not be continued with its current focus after its funding runs out in June, 1998. The courses are simply too expensive to continue offering to the numbers of students currently being served. Several courses offered via Internet, however, are likely to continue as part of the HRD and Adult Education curriculum.

The two remaining distance courses we will yet offer are all electives. It will not be possible for new, incoming students to obtain a degree via distance learning. However, several students who have

begun degrees through ITV will be able to complete their degrees using some course substitutions combined with supervised independent study. A new ITV laboratory using ISDN technology has just been installed in the building across from the building housing HRD. It has already been used for seminars and has proven to be effective. The use of this laboratory, in conjunction with the Internet and continuing efforts to create world-wide partnerships, will provide an ongoing opportunity for HRD at the University of Minnesota to continue to explore ways in which a broad range of students can be served through distance learning.

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Incorporating Action Learning in the Classroom: A Case Study

Kimberly S. McDonald
Indiana-Purdue University Fort Wayne

This paper describes an HRD graduate class which used action learning principles to gather assessment data for an academic program. The merits and potential problems of employing action learning projects in the classroom are discussed.

HRD academic programs increasingly are using action learning projects as a means of accomplishing significant learning objectives (Marquardt, 1997). Since action learning is viewed as an excellent alternative to more traditional delivery systems, it seems logical that an academic program could benefit by incorporating this learning methodology into the curriculum. In the spring semester of 1997, I taught a graduate level course entitled "Focus Group Research." This course fulfilled a requirement for masters level students working on an education degree with a cognate in training and development. The course featured an action learning project which will be described in this paper. The merits and potential problems of action learning in the classroom will also be discussed.

Problem

Like any effective human resource development unit, college programs are being asked routinely to assess their effectiveness. The university where I teach now requires each academic program to develop an assessment plan and to evaluate student learning, student satisfaction, and curriculum on an on-going basis. My department's assessment team decided that we needed to gather some qualitative data during the 1996-97 academic year. The previous year our attempts to survey alumni had been unsatisfactory — the response rate was poor and the questions we asked proved to be of little value in curriculum reform. We realized that gathering qualitative data would not provide us with conclusive answers, but we felt this method would yield different, perhaps richer data, and it would assist in developing a well constructed quantitative assessment.

The assessment team decided to use focus groups to gather information regarding alumni satisfaction with the program and to find out if we were providing a curriculum that would help meet employers' needs. We realized faculty members could not conduct the focus group discussions for a variety of reasons. We concluded that developing a course that emphasized focus group methodology and assessment and involved an action learning project could be beneficial both to students and to the department.

The Course

The resulting course entitled "Focus Group Research," was designed to accomplish three major objectives. Students would learn more about program assessment and focus group research, they would develop the necessary skills to conduct focus group discussions, and they would engage in an action learning project. Action learning had been discussed in many of their classes as a potentially effective approach to learning, however few students had experienced it in their businesses or in previous college courses.

The assessment team decided to select students to participate in this class. We wanted students with some background in assessment, and we wanted students that we felt would devote the necessary time and effort to produce an effective assessment. Six graduate students and two undergraduates were approached and asked if they were interested in the course; five graduate

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students and one undergraduate did enroll in the course. All of the students except one were within 1-2 semesters from graduating. The issue of student participation is important and perhaps in this case we should have opened the course up to more students. I will return to this issue later in the paper.

The course was designed as a one semester, three credit hour course. The first four weeks of the semester we met on a weekly basis. The majority of this time was spent orienting the students to the project and discussing focus group research. One meeting was devoted to meeting with the assessment team (comprised of three faculty members) to discuss the project. After the fourth week, we met at least once every two weeks. The entire group worked on most of the preliminary tasks. Students were divided into dyads once the dates for the focus group discussions were established. These dyads were responsible for two focus groups discussions with each student serving as moderator for one discussion and assistant moderator for the other discussion.

The students helped design the majority of the assessment. For example the class, with the assistance of the instructor and the other two members of the assessment team, decided how participants would be chosen and what questions would be asked. The students contacted potential participants using a script the class had written to describe the project. After the class drafted questions for both the employer and alumni focus groups, we piloted the questions using an undergraduate HRD class studying assessment. The feedback from the undergraduate class and the assessment team greatly improved the clarity of the questions.

The class conducted six focus group discussions in the tenth through the twelfth weeks of the semester. Three focus groups were comprised of alumni of our undergraduate program; the other three consisted of representatives from various companies in the local area -- most of them held supervisory or HR positions within their companies. After the focus groups were conducted, the students prepared verbatim transcripts of the focus group discussions they moderated.

Since this was the first time I had incorporated action learning in the classroom, I was very anxious to receive feedback from the students regarding the experience. All of the students had been in previous classes with me, and I felt I had established good rapport with all of them. As a result, the students provided me with informal feedback throughout the semester. At the end of the semester, each student was provided an open-ended questionnaire to complete with a return envelope. I wanted them to spend some time reflecting on the experience before writing their comments. Five of the six students returned their questionnaires to the department secretary who compiled all of their responses.

The Project Results

It is debatable whether this classroom project should be labeled action learning. Watkins & Marsick (1993) identify three major components of action reflection learning: project work, "just-in-time training" that occurs as the need arises, and "discussion of concerns back on the job that arise as learners try out new skill outside of the program" (p. 126). The class project described above involved these three components. The assessment project was the focus of the class — it was a real university problem that was addressed by a small group of peers. Students gained knowledge and skills necessary to complete the project throughout the semester. And discussions did occur before and after implementation of the project regarding concerns and problems the students would and did encounter in trying out these new skills.

However, in some respects this project lacked other important elements considered central to action learning. An essential component of action learning involves the development of solutions to a problem "that has no easily identifiable solution" (Marquardt, p. 4). A solution to this assessment problem already had been determined by the assessment team — the students focused their attention on solving implementation problems. An additional hallmark of action learning teams is that throughout the problem solving process, assumptions are questioned (Watkins & Marsick, 1993; Marquardt, 1997; ARL™, 1996). As a result of this questioning process, new insights regarding the problem emerge which may lead to better solutions and greater learning. In this situation, there was very little questioning of assumptions probably due to

the way the assessment team developed the project. We (the assessment team) assumed that using focus groups would be an effective way to assess our program. This assumption and other assumptions (i.e., the usefulness of these types of assessment in higher education) were never questioned.

Perhaps it is impossible to meet all of the criteria of action learning in academic settings, because so many universities are locked into the semester format. In a 14 to 16 week format it is extremely difficult for an action learning team to explore a complex organizational problem, act on the problem, and "test new knowledge and skills" (Marquardt, p. 5). Time was a critical issue for the students and myself as we worked on this project. One student wrote on the evaluation: "The project was a lot more work than I had anticipated. At times I felt rushed. I didn't feel I was doing a very thorough job. . ." Most of the students commented that they would have liked more time to practice facilitating a focus group before the "real" discussion occurred. Some commented that they would have liked to have conducted a second discussion, because they had learned so much from facilitating one. I found there was not enough time in class to focus on information regarding assessment. Almost all of our time during class was spent discussing focus groups in general or working on the specific project.

Most critical was the lack of time to reflect on the process. Reflection is considered an essential component of action learning (Yorks, et al., 1996; Baldwin, 1996). According to Brooks and Watkins (1994), "the notion that we learn from our experience through cycles of reflection and action is central to all of the action technologies" (p. 6). This is not to say that the assessment project was devoid of reflection. The students were required to keep a journal where they reflected on reading material, class discussions, and their experiences. However, with deadlines regarding the project always in mind, we often found ourselves too busy with activities to reflect adequately on the learning.

Despite these criticisms of the project all five students who responded to the end of course evaluation indicated they had learned from the project. Some of their comments included:

> "This was an excellent hands-on learning experience. I feel as though I have a sound basis for conducting focus groups in the future."
>
> "It was a wonderful experience to actually use the training in a hands on project. . ."
>
> "Conducting the focus group with true subjects rather than make believe situations provides a wonderful learning experience."
>
> "This class required more work and time than any thus far but has also been the most useful, practical, and interesting. . ."
>
> ". . .It was a learning experience for all of us and any future courses that can be further enhanced with action learning techniques will result in a win/win situation for the students and the University. . .I appreciated the opportunity to participate in this non-traditional activity and reap the benefits. It should be repeated again!"

Two of the students commented on how helpful it was to work as a team. When asked about what aspects of the course were most useful for learning, one wrote: "The interaction we had as a group when trying to pull everything together. This really demonstrated how the power of the group is superior to that of the individual (in most cases) when it comes to putting together a quality product."

There were other benefits of this project. The students and the focus group participants felt the project was an excellent way for the department to build alliances with employers within the community and strengthen its affiliation with alumni. The focus group discussions yielded some useful data that the department will be able to use to improve our curriculum and teaching. It also reinforced the importance of partnering with my students; that I have as much to learn from projects such as this one, as my students.

Implications for HRD: Incorporating Action Learning into Academic Programs

Incorporating action learning into HRD programs is an effective way to provide students with experience working through HRD problems. Projects such as the one described above offer a viable alternative to internships for real world experience. This can be very important -- especially on campuses with a large commuter population. All of the students engaged in this action learning project were employed full-time, so most internships, for example, would have been out of the question. And even though they all had significant work experience, many of them lacked HRD experience. This project obviously did not provide the gamut of experiences needed for an HRD practitioner, but it did provide some opportunity to apply skills and work through a problem. Incorporating a large scale project or several action learning experiences throughout the curriculum may further strengthen an HRD program.

However before programs embrace action learning, it is critical that faculty and administrators consider the potential ethical issues that may arise when using this form of learning. For example, are we using action learning chiefly as a way to get projects completed? Or will the projects involve meaningful problems that will facilitate student learning? Brooks and Watkins (1994) pose a crucial question that should be carefully examined when using this methodology in the classroom: ". . . whose interests does the action technology serve?" (p. 12)

Also critical to the success of action learning is the facilitator, "set advisor," or "project team advisor" (Yorks, et al., 1996, p. 314; Baldwin, 1996; Marquardt, 1997). Does this role change when the facilitator is the professor? Will the grading process diminish its effectiveness? Will we feel a need to "control the process" (Watkins & Brooks, 1994, p. 106)? Watkins & Brooks elaborate on this control issue: "This means that facilitators must examine their own intentions to impose an ideology, reap ego-related or professional rewards, or achieve a 'successful' outcome. This can be a painful process and is not one that many undertake willingly" (p. 106). At the outset of this project, the assessment team wrestled with our concerns about achieving a "successful outcome." We wanted students who would represent the department and the university well, therefore we selected the students we wanted in the class. One student who we had not asked to enroll approached me about joining the class, and I subsequently invited her to enroll. Our decision regarding selection may not have been optimal because it denied some students this learning opportunity. However, the feedback from the project has led me to consider incorporating more action learning in my classes. So more students in the future may benefit from this first effort. The selection decision underscores the importance of thinking through all aspects of a project before incorporating action learning methodology in the classroom.

Finally, confidentiality issues often will arise as the students begin to work on a problem. In my situation, it was critical that the students as focus group moderators realized the importance of respecting the confidentiality of their respondents. Therefore, each student was required to sign a statement that indicated they would not repeat information divulged by participants (except via transcripts) and they would not attribute any particular comments to specific respondents by name or title. Other situations involving community organizations or businesses are likely to result in a different set of confidentiality issues. In my situation, the university's human subjects office was very helpful in responding to my inquiries.

Summary

As the field of HRD continues to evolve, academic programs need to rethink how they teach students of HRD. Many businesses are using action learning to develop their employees, hence it seems logical that action learning also should be employed in the college classroom. However, there is a need for continued dialogue regarding how to incorporate this methodology into the classroom successfully to ensure that significant learning occurs.

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A Study of the Learning Characteristics of a Group of Adults Undertaking a HRD Program in a Tertiary Environment

Bryan W. Smith
Edith Cowan University, Australia

The study uses a qualitative, or interpretivistic, approach to examine the thoughts and feelings of four adult learners undertaking a Human Resource Development (HRD) program in a tertiary institution. Early indications from that analysis have indicated that the data generated should provide rich information upon the thoughts and feelings of adults returning to formal learning after a long break in their lives.

To date few, if any, studies have reported a micro analytic approach to adult learners prior to a learning experience, during that learning experience and on completion of that experience. Particularly, no studies appear to have examined adult attributions, determined adult approaches to learning and examined their cognitive processes in a systematic fashion. This study attempts to address such a gap in the literature.

From the literature it appears that the search for a theory of adult learning has just begun (Merriam, 1993). In the effort to forge a distinction with children's learning it seems that the most promising difference is the adult desire for self-directedness (derived from work by Houle (1961), Tough (1979), Knowles (1980), Candy (1991) and others) which, in turn, is often motivated by a desire to fill a perceived gap between what the learner already knows and what they perceive they need to know (Kauffman, 1994). Perhaps then it is the nature and existence of this motivation which differentiates adult learners from children. This study postulates that adult desire to learn - their motivation - is a product of the interplay of explanatory style, learned helplessness, conceptions of learning, and metacognitive and cognitive processes.

Research Questions

The study sought to answer the following questions:

1. What are the characteristics of adult learners in a HRD program in a tertiary setting?
   - What are their backgrounds in terms of education and experience?
   - What are their ages, sex and ethnicity?
   - What motives do they have for entering the program?
   - What expectations do they hold about the program?

2. What are the conceptions of self-performance that adult learners appear to hold and to develop in a tertiary learning situation?
   - What are their conceptions before, during and following the learning experience?
   - What sorts of ideas, beliefs, views, emotions, lines of reasoning make up the learner's conception of self-performance and what are the relationships between these?
   - What role does a learner's causal perception of success and failure appear to fulfill in a conception of self-performance?

3. What are the conceptions of approaches to learning that adult learners appear to hold and then develop in a tertiary learning situation?

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What are their conceptions of approaches to learning before, during and following the learning experience?
How do their approaches to learning relate to their motivation?

Methodology

The research was a qualitative, or interpretivistic, micro analysis of four adult students undertaking a tertiary HRD program. The research was divided into three stages: a presage stage, a process stage and a product stage. Data were collected on the four adult students at each stage, that is, before the HRD program, during the conduct of the program and at the completion of the program.

The Presage Stage Data were collected before the students started the program using semi-structured interviews and two standardized instruments. The instruments were used to give the researcher some additional data on the characteristics of the students as individuals which could be compared with the qualitative information gained from the interviews.

Interviews were used to gather biographical details and student perceptions of the program and their motivation to complete it. Data were collected on explanatory style by using the Attribution Style Questionnaire (ASQ) (Petersen et al, 1982) which indicates the degree of permanence, pervasiveness and personalisation that the subjects attribute to the causes of the events in their lives, or in other words, the degree of optimism and pessimism they possess.

Information on their approaches to learning was gathered through administration of the Study Process Questionnaire (SPQ) (Biggs and Telfer, 1987) which aims to discover whether learners hold deep, surface or achieving approaches to learning.

The Process Stage Stimulated recall methodology was used to obtain information on the students' covert behavior during the learning experience. Sessions were videotaped and, on completion of the learning experience, subjects were interviewed on their thoughts and feelings during the experiences as prompted by the tape. The interviews were transcribed and then analyzed to separate interactive thoughts (those thoughts reported by the subject of what he or she was thinking and feeling during the sessions) from non-interactive thoughts (those thoughts reported by the subjects during the interview that were additional to interactive thoughts). Two examples from the transcripts of clues which indicate interactive data are: "I was sort of thinking..." and "You feel you are the only one who feels that way...". An example of a clue to non-interactive data is: "No, I'm sorry I can't remember that bit..."

As a first stage of content analysis interactive thoughts were unitized, that is, expressed thoughts were identified into units of complete ideas. Such units consisted of a series of words or even a whole paragraph of transcript. These units were then coded according to categories within the developed content analysis system from which both quantitative and qualitative analysis followed.

Journals were also used by the subjects where they reported random thoughts and feelings upon the entire learning experience. These documents were analyzed and enabled further triangulation of data to be undertaken.

The Product Stage Interviews were conducted at the conclusion of the program. The interviews aimed to gather information on the subjects' sense of satisfaction and whether expectations had been met. Final achievement grades were examined for each subject to determine the facilitator's perceptions of their individual achievements during the program.

Results and Conclusions

Results are tentative at this stage. The four subjects, two men and two women, have similar backgrounds. The men worked in a trade and the women in secretarial positions early in their working lives. They all are now working as trainers. Apart from one of the men, all had

reasonably negative experiences at school and found it largely irrelevant to their lives. This theme of relevance appears to be a common factor in much of their interaction with the researcher.

Their thoughts about entering university later in life are similar - doubts about their ability to cope and the fear that fellow students would be better performers. In terms of their conceptions of learning three adopt an achievement orientation while one has a surface approach. Their attributional styles were all from a medium to high optimistic orientation.

The initial analysis of covert behavior in the training room appears to indicate that interactive thoughts can be categorized according to a modified version of CASSIT (Content Analysis System of Student Interactive Thoughts) (King, 1979). The nine categories of units of interactive thoughts in CASSIT are:

1. *Subject Matter* - thoughts on content
2. *Cognitive processes* - thoughts involved with learning
3. *Behavioral Moves-Self* - thoughts about own actions
4. *Behavioral Moves-Student* - thoughts about other students
5. *Behavioral Moves-Facilitator* - thoughts about the facilitator
6. *Self Performance thoughts* - thinking about own performance
7. *Self Performance feelings* - emotions about own performance
8. *Feelings* - not associated with self-performance
9. *Non-task related* - thoughts not pertaining to subject matter,

An additional category summarizing metacognitive thoughts (awareness about own thinking) has been developed. Otherwise CASSIT will be a useful instrument for data analysis. There is ample rich evidence in the transcripts to support this claim.

As interactive data provides the richest clues to student's thoughts and feelings about their learning experiences King (1979) identified nine guidelines that are to be used in classifying data as interactive. Data are to be classified as interactive when the:

- student recalls what they are saying or doing, or what they have said and done.
  "Yeah, just writing the schedule of what he's going to be talking about today".

- student is showing awareness of what they were doing rather than thinking.
  "I think I was just trying to recall what he was talking about last week by looking at last week's sheets."

- student is engaged in general discussion about learning and situations in the learning process that sometimes arose:
  "Sometimes I'll sit in front of the computer and note it straight into the computer...but most of the time I like to write it down as I always have."

- student is providing a reason, explanation, rationale for what they are saying or doing:
  "I turned up here and realized that I've got a new car and didn't have my parking sticker - having to find a parking spot - feed the machine - consequently that's what stressed me out more than anything."

- student summarizes, restates, reviews what they or the interviewer has said previously;
  "I guess what I'm trying to say in a round about way is that for me to learn it I do like to be able to see how this is relating to me."

- student discloses causal explanations and perceptions of behavior in response to extended questioning by the interviewer:
  Int. *"You said you are hoping to keep focused."*

Stu. "Yeah, because I've actually been quite ill this week and became very anemic And tired...I find it hard to remember.
Int. *"Does this concern you?"*
Stu. *"Yes it concerns me greatly - it concerned me the whole time I was trying to do my assignment.*
Int. *"You can't remember what was going through your mind?"*
Stu. *"No, but looking at the video my body language is that of someone fairly tired, I think."*

- student indicates uncertainty about thoughts and feelings being interactive:
  "I can't actually think of what I was thinking - probably I was trying to think over what had happened to me over the last two weeks."

As well, look for contextual clues. Decisions about whether data are interactive can only be reached after examining clues found in lines prior or subsequent to sections under scrutiny. Finally, when in doubt classify data as non-interactive.

Implications

While data analysis is not yet complete it is anticipated that the triangulation of data that comprises the micro-analysis of the four adult learners in a tertiary setting will alert adult educators to the covert thought processes that may exist in many adults returning to study later in life. For instance, there is evidence of joy mixed with apprehension about entering university life. As well, subjects identified a strong need to be able to relate learned information with that which is already known, and for that information to be highly relevant to the workplace. Time, or lack of it, for assignment preparation is an important stressor but the motivation to succeed at tertiary level placates this stress to some extent. This sample of information, and that which has not been reported in this paper, needs to be known and understood by adult educators in order that they can adjust their presentation and facilitating skills during adult learning programs to cater for the nature and range of adult student thoughts and feelings.

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